Week 1 - Python basics and Numpy, Pandas

- Python- https://automatetheboringstuff.com/ (basics)
- Assignment- Copy of Python_Assignment_1.ipynb
- Google Colab Introduction For Machine Learning (Intro and setup)
- Google Colab Tutorial for Beginners | Get Started with Google Colab (Intro and setup)
- NumPy- https://www.w3schools.com/python/numpy/numpy_intro.asp
- Assignment- Copy of 01-Numpy Exercise.ipynb
- Pandas- https://www.w3schools.com/python/pandas/pandas intro.asp
- Assignment- Copy of Pandas1.ipynb
- Matplotlib- https://www.w3schools.com/python/matplotlib_pyplot.asp
- Assignment- Copy of Exercise1.ipynb
- Copy of 01-Matplotlib Concepts Lecture.ipynb

• Week 2 - Introduction to ML AND CNN

• Train Test Split-

https://medium.com/@odeyemitemi23/train-test-split-in-machine-learning-cc0c02221e8b

- Working of CNNs
- Gradient Descent
- Must Read (Chap-4,5,7,8)
- CNN architectures
- For those comfortable with video resources

Additional material added later do take a look if you have time:

- For those comfortable with video resources
- Chapter 9, Conv. Nets

clustering - https://www.geeksforgeeks.org/clustering-in-machine-learning/classification - https://keylabs.ai/blog/what-are-classification-models/linear regression - https://www.javatpoint.com/linear-regression-in-machine-learning

• Week 3 -Implementation of CNN, *Introduction to tensorflow*

- TensorFlow implementation of CNNs
- Video tutorial for TensorFlow

Additional Resources

clustering - https://www.geeksforgeeks.org/clustering-in-machine-learning/ classification - https://keylabs.ai/blog/what-are-classification-models/

 $\textbf{linear regression -} \underline{\textbf{https://www.javatpoint.com/linear-regression-in-machine-learning}}$